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Yousefpor et al.

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(54) **ACOUSTIC PULSE CODING FOR IMAGING OF INPUT SURFACES**

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CPC G06F 3/0436; G06K 9/0002
See application file for complete search history.

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(57) **ABSTRACT**

An acoustic imaging system includes multiple acoustic transducers disposed to circumscribe a portion of imaging surface. An acoustic imaging system also includes a controller and an image resolver. The acoustic transducers convert electrical signals into mechanical energy and/or mechanical energy into electrical signals. The controller is adapted to apply an electrical signal to the acoustic transducers which, in response, induce a mechanical wave, such as a surface wave, into the circumscribed portion. The controller is also adapted to receive electrical signals from the acoustic transducers. The image resolver uses the electrical signals received by the controller in order to construct an image of an object in physical contact with the imaging surface.

19 Claims, 27 Drawing Sheets

